

IN THE CLAIMS:

Please amend the claims as follows:

Sub B
1. (Currently Amended) A method for configuring a graphical user interface (GUI) element to publish ~~or~~ and subscribe to a data target ~~or~~ and data source, respectively, the method comprising:

displaying the GUI element on a display;

receiving user input specifying ~~at least one of~~ a data source ~~or~~ and a data target with which to associate the GUI element;

in response to said receiving user input, automatically configuring the GUI element to perform ~~at least one of~~: 1) receiving and displaying data from the specified data source; ~~and/or~~ and 2) publishing data associated with the GUI element to the specified data target.

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2. (Original) The method of claim 1, wherein the GUI element is automatically configured without user programming.

3. (Original) The method of claim 1, wherein the GUI element is automatically configured without user input specifying source code for this operation

4. (Currently Amended) The method of claim 1,
wherein said receiving user input specifying ~~at least one of~~ the data source ~~or~~ and the data target comprises receiving user input via a user interface dialog box.

5. (Currently Amended) The method of claim 1, further comprising:
the GUI element performing ~~one or more of~~: 1) receiving and displaying data from the specified data source; ~~or~~ and 2) publishing data associated with the GUI element to the specified data target, wherein said performing is performed after said automatically configuring.

6. (Original) The method of claim 1,
wherein the method executes on a first computer;
wherein the at least one of the data source or data target is comprised in a second computer remotely located from the first computer, wherein the first computer is operable to connect to the second computer over a network;
wherein said automatically configuring the GUI element comprises automatically configuring the GUI element to connect to the second computer and perform at least one of: 1) receiving and displaying data from the specified data source; and/or 2) publishing data associated with the GUI element to the specified data target.

7. (Currently Amended) The method of claim 1, wherein the GUI element is associated with a first computer program;
wherein said displaying the GUI element comprises including the GUI element in a user interface associated with the first computer program;
wherein said user input specifying ~~at least one of a~~ the data source ~~or~~ and data target is received during development of the first computer program.

8. (Currently Amended) The method of claim 7, wherein, during execution of the first computer program, the GUI element is operable to perform ~~at least one of~~: 1) receiving and displaying data from the specified data source; ~~and/or~~ and 2) publishing data associated with the GUI element to the specified data target.

9. (Cancelled) The method of claim 7, further comprising:
executing the first computer program after said automatically configuring, wherein said executing the first computer program includes the GUI element performing one or more of: 1) receiving and displaying data from the specified data source; or 2) publishing data associated with the GUI element to the specified data target.

10. (Original) The method of claim 7,
wherein the first computer program is a graphical program.

11. (Original) The method of claim 1, wherein the at least one of the data source or data target is one from the group consisting of:

an HTTP server;
an FTP server;
an OPC server;
an SNMP server;
a DataSocket server; and
a file.

12. (Original) The method of claim 1,
wherein said user input specifies a first data source with which to associate the GUI element;

wherein said automatically configuring comprises automatically configuring the GUI element to receive and display data from the first data source.

13. (Original) The method of claim 12,
wherein the first data source is a remote data source associated with a remote computer;

wherein said automatically configuring the GUI element comprises automatically configuring the GUI element to connect to the remote data source and receive and display data from the remote data source during program execution.

14. (Original) The method of claim 13, further comprising:
executing a computer program operable to publish live data to the remote data source;

wherein the GUI element is operable to display the live data published by the computer program.

15. (Original) The method of claim 1,

wherein said user input specifies a first data target with which to associate the GUI element;

wherein said automatically configuring comprises automatically configuring the GUI element to publish data associated with the GUI element to the first data target.

16. (Original) The method of claim 15,
wherein the first data target is a remote data target associated with a remote computer;

wherein said automatically configuring the GUI element comprises automatically configuring the GUI element to connect to the remote data target and publish data associated with the GUI element to the remote data target.

17. (Original) The method of claim 16, further comprising:
executing a computer program operable to receive the data from the remote data target;

wherein the computer program is operable to display the data.

18. (Cancelled) The method of claim 1,
wherein said user input specifies both a data source and a data target with which to associate the GUI element;

wherein said automatically configuring comprises automatically configuring the GUI element to: 1) receive and display data from the specified data source; and 2) publish data associated with the GUI element to the specified data target.

19. (Currently Amended) The method of claim 18 1, wherein the specified data source is the same as the specified data target.

20. (Original) The method of claim 1, wherein the data is live data.

21. (Original) The method of claim 20,
wherein the data comprises measurement data.

~~22-32. (Cancelled)~~

33. (Currently Amended) A method for configuring a first computer program to display data, the method comprising:

displaying a graphical user interface (GUI) element associated with the first computer program in response to user input received during development of the first computer program;

receiving user input during development of the first computer program specifying a data source with which to associate the GUI element;

automatically configuring the first computer program to receive data from the specified data source and display the data in the GUI element during program execution, in response to the user input specifying the data source;

receiving user input during development of the first computer program specifying a data target with which to associate the GUI element;

automatically configuring the first computer program to receive user input changing data associated with the GUI element and publish the changed data to the specified data target during program execution in response to the user input specifying the data target.

34. (Currently Amended) The method of claim 33,

wherein said receiving user input specifying the data source and the data target does not include receiving user input specifying source code for the first computer program.

35. (Currently Amended) The method of claim 33, further comprising:

executing the first computer program;

wherein the first computer program is operable to receive data from the specified data source and display the data in the GUI element during said executing the first computer program;

wherein the first computer program is operable to publish data to the specified data target during said executing the first computer program.

36. (Original) The method of claim 33,
wherein the first computer program is a graphical program.

37. (Original) The method of claim 33,
wherein the method executes on a first computer;
wherein the data source is a remote data source associated with a second computer remotely located from the first computer, wherein the first computer is operable to connect to the second computer over a network;
wherein said configuring the first computer program comprises configuring the first computer program to connect to the remote data source and receive and display data from the remote data source during program execution.

38. (Original) The method of claim 37, further comprising:
creating a second computer program operable to publish live data to the remote data source;
wherein the first computer program is operable to display the live data published by the second computer program in the GUI element.

39. (Original) The method of claim 33,
wherein the data source is a server program.

40. (Cancelled) The method of claim 33, further comprising:
receiving user input during development of the first computer program specifying a data target with which to associate the GUI element, wherein said receiving user input specifying the data target does not include receiving user input specifying source code for the first computer program;

in response to the user input specifying the data target, configuring the first computer program to receive user input changing data associated with the GUI element and publish the changed data to the specified data target during program execution.

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41. (Currently Amended) The method of claim 40 33,
wherein the data target is the same as the data source.

42. (Original) The method of claim 33, wherein the data source is specified by a uniform resource locator (URL).

43 - 54. (Cancelled)

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55. (Original) A method for configuring a graphical user interface (GUI) element to publish and subscribe to data, the method comprising:

displaying the GUI element on a display;
receiving user input specifying a data source and target with which to associate the GUI element, wherein the data source and target are the same;
in response to said receiving user input, automatically configuring the GUI element to receive and display data from the specified data source and publish data to the specified data target.

56 - 67. (Cancelled)

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68. (Currently Amended) A memory medium for configuring a graphical user interface (GUI) element to publish ~~or~~ and subscribe to a data target ~~or~~ and data source, respectively, the memory medium comprising program instructions executable to:

display the GUI element on a display;
receive user input specifying ~~at least one of a data source or~~ and a data target with which to associate the GUI element;

A7
in response to said receiving user input, automatically configure the GUI element to ~~perform at least one of~~: 1) receive and display data from the specified data source; and/or and 2) publish data associated with the GUI element to the specified data target.

Sub B2
69. (New) A method for configuring a graphical user interface (GUI) element to subscribe to a data source, the method comprising:

displaying a first GUI element on a display of a first computer system;
receiving user input specifying a data source with which to associate the first GUI element;

in response to said receiving user input, automatically configuring the first GUI element to receive and display data from the specified data source;

the first computer system receiving data from the specified data source, wherein the data includes information specifying a first data type of the data;

A8
automatically determining that the first GUI element cannot display data of the first data type;

automatically substituting a second GUI element for the first GUI element, wherein the second GUI element can display data of the first data type;

displaying the received data from the specified data source on the second GUI element.

70. (New) A method for configuring a graphical user interface (GUI) element to subscribe to a data source, the method comprising:

displaying a first GUI element on a display of a first computer system;

receiving user input specifying a data source with which to associate the first GUI element;

in response to said receiving user input, automatically configuring the first GUI element to receive and display data from the specified data source;

the first computer system receiving data from the specified data source, wherein the data includes information specifying a first data type of the data;

AS automatically determining if the first GUI element can display data of the first data type;

indicating an invalid condition if the first GUI element cannot display data of the first data type.
